

REMARKS

Claims 26-54 are pending in this application with claims 26, 30-31, 33-37, 40, 42 and 46-54 being amended in this response. Claim 29 is cancelled and the features of this claim are integrated into claims 26, 37, 40, 42, 46-48, and 52-54. The Applicants amend the set of claims in order to further clarify the differences between the cited prior art and the invention as claimed. In particular, the Applicants amend the set of claims to further define an audiovisual programme, synchronization signals, recognition elements, and (extracted) audiovisual portions, and that the detection is done without any modification to the audiovisual programme, as suggested by the Examiner. A support for the amendment of the claims may be found throughout the specification and originally filed claims. Consequently, Applicants respectfully submit that no new matter is added by the amendments to the claims.

Rejection of Claims 26-29 and 31 - 54 under 35 U.S.C. 102(b)

Claims 26 – 29 and 31 – 54 are rejected under 35 U.S.C. 102(b) as being anticipated by Hoffberg et al. (US 5,920,477).

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” MPEP §2131, citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).]

Claim 26 provides a recognition unit comprising a processor for executing instructions for recognizing audiovisual portions of audiovisual content of at least one audiovisual programme received, said audiovisual portions serving as synchronization signals, each of said audiovisual portions of audiovisual content consisting of at least one of the following audiovisual portions: an image, an image part, a sound and any combination of at least two of said audiovisual portions, and the audiovisual programme, being audio and/or video, comprises an audiovisual content intended to be broadcast to users. The recognition unit includes a reception module and a recording module, for receiving and recording in a storage space. Recognition elements make it

possible to obtain at least one extracted audiovisual portion of the audiovisual content of the audiovisual programme, the recognition elements being constructed from pictures, sounds, parts of pictures or combinations of these audiovisual portions of audiovisual content. A reception module receives at least one transmitted stream carrying the audiovisual programme. A detection module detects the synchronization signals in the audiovisual programme received, the detection being done without any modification being made to the at least one audiovisual programme, using the recognition elements stored in the storage space, by recognition in the audiovisual content of the audiovisual programme received, of the extracted audiovisual portion. A transmission module transmits action instructions in case of detection of the synchronization signals in the audiovisual programme, the instructions being designed so as to trigger at least one action. For the reasons presented below, Applicants respectfully submit that Hoffberg fails to disclose each feature claimed in claim 26 and therefore does not anticipate the recognition unit of claim 1.

Unlike the claimed arrangement, Hoffberg provides an enhanced interface for facilitating human input of a desired control sequence in a programmable device (e.g. a VCR) by employing specialized visual feedback (see Abstract). Hoffberg is fundamentally different from the claimed arrangement which makes it possible to initiate actions from at least one audiovisual programme received, that is completely unintrusive with regard to broadcasters and operators of services while permitting simple and reliable implementation (see presently amended claim 26 and the specification at page 6 lines 11-15).

The section relied on in the Office Action (and elsewhere) describes a system and process that is fundamentally different from and not equivalent to the present claimed "recognition unit". The identifier codes described in Hoffberg are transmitted by special Video Program System Signal Transmitters (col. 21 lines 52-60). The identifier codes are emitted in a Video Program System Signal by the Video Program System Signal Transmitters of television stations and are transmitted at the beginning of a program and are not audio or video but rather digital data comprised in videotext,

interpreted by a videotext programs computer. As stated in column 21, line 47 of Hoffberg: "*This is a different implementation of the Videotext system (.)*" and column 21, line 60 of Hoffberg: "*The videotext programs computer (VPV) disclosed does not intelligently interpret the transmission. Rather the system reads the transmitted code as a literal label (.)*". It is well known by persons skilled in the art that videotext is non-audio and non-video digital data added to a television channel. In fact, this interpretation is confirmed in column 22, lines 7 – 10 of Hoffberg which states that the "*videotext signal of the prior art includes a digitally encoded text message which may be displayed in conjunction with the displayed image, similar to the closed caption system*". Thus, contrary to the assertion in the Office Action, identifier codes of Hoffberg cannot be considered to be part of an audiovisual programme such as the "at least one audiovisual programme" that is received by the claimed recognition unit. Claim 26 specifically states that "*said audiovisual programme, being audio and/or video*", see also page 6, lines 27-29 of the specification.

Moreover, the identifier codes of Hoffberg are distinguished from both the claimed "recognition elements" and the claimed "synchronization signals". Whereas the identifier codes described in Hoffberg are transmitted as a label, associated with a transmission and are merely matched to user input to cause a transmission to be recorded, the recognition elements of the claimed invention are constructed from "*pictures, sounds, parts of pictures or combinations or these audiovisual portions of audiovisual content*" as claimed in claim 26 and described in the specification at page 23 lines 29-32, and the synchronization signals are "*audiovisual portions of audiovisual content of at least one audiovisual programme received, said audiovisual portions serving as synchronization signals*" as claimed in claim 26 and as described in the specification at page 22 line 30.

In addition, Hoffberg describes monitoring of a television channel for the unique identifier code, in order to detect the start of a programme and then start recording the programme. Monitoring a television channel for identifier code data as in Hoffberg is fundamentally different from the recognition of synchronization signals via

recognition elements that correspond to an audiovisual portion of the particular audiovisual programme as in the claimed arrangement. In the present claimed arrangement, the recognition unit includes a processor for executing instructions that recognizes synchronization signals in at least one received audiovisual programme by recognizing an audiovisual portion of audiovisual content of the audiovisual programme that is extracted from the total audiovisual content of the audiovisual programme. Unlike the claimed arrangement, Hoffberg monitors a television channel for a unique identifier code from non-audio and non-video digital data that is added to the television channel. This is fundamentally different from the claimed arrangement which recognizes audiovisual portions of the audiovisual programme without any additional data being changed and/or inserted into the audiovisual programme to provide a synchronization signal. Thus, the claimed arrangement advantageously enables system recognition of synchronization signals without adding or changing information within the audiovisual program data as which provides *"audiovisual portions of audiovisual content of at least one audiovisual programme received, said audiovisual portions serving as synchronization signals"* and *"said detection being done without any modification being made to said at least one audiovisual programme"* as recited in the present claimed arrangement. The section of Hoffberg relied on in the Office Action (and elsewhere) teaches away from the claimed arrangement because it requires the insertion of data (identifier codes) into the transmission and uses this data to begin recording the transmission.

Claim 26 clearly defines that extracted audiovisual portion may include and states *"each of said audiovisual portions of audiovisual content consisting of at least one of the following audiovisual portions: an image, an image part, a sound and any combination of at least two of said audiovisual portions"*. A recognized audiovisual portion is then considered as a detection of a synchronization signal as defined in claim 26 which states: *"recognizing audiovisual portions of audiovisual content of at least one audiovisual programme received, said audiovisual portions serving as synchronization signals"*.

Therefore, it is respectfully submitted that the inclusion of identifier codes in a transmission stream as taught by Hoffberg teaches away from the present claimed arrangement which recognizes the audiovisual content of an audiovisual programme *“by means of recognition elements stored in said storage space”* and *“said detection being done without any modification being made to said at least one audiovisual programme”*. Unlike the claimed arrangement, Hoffberg describes a system that requires the transmission to be modified in order to identify the content. This is in direct contrast to the claimed system which enables the recognition unit to detect that a synchronization signal exists without the need to modify the audiovisual programme itself or the stream in which it was transmitted and instead use a particular audiovisual portion of the audiovisual content of the audiovisual programme.

As Hoffberg operates in a fundamentally different manner than the presented arrangement, it is respectfully submitted that Hoffberg cannot teach or suggest the present claimed *“detection module for detecting said synchronization signals in said audiovisual programme received, said detection being done without any modification being made to said at least one audiovisual programme, by means of said recognition elements stored in said storage space, by recognition in the audiovisual content of said audiovisual programme received, of said extracted audiovisual portion,”* as recited in claim 26. Rather, Hoffberg describes a VCR that is able to monitor a received television transmission for non-audio, non-video identifier code data to determine if a recording should occur. The monitoring of ancillary data in a transmission stream is not equivalent to using *“recognition elements making it possible to obtain at least one extracted audiovisual portion of the audiovisual content of said audiovisual programme, said recognition elements being constructed from pictures, sounds, parts of pictures or combinations of these audiovisual portions of audiovisual content”* by recognizing that an audiovisual portion of the audiovisual programme corresponds to the extracted audiovisual portion. Thus, Hoffberg monitors a different type of transmission for a different type of data (non-audio, non-video data) as compared to the claimed arrangement which identifies particular audiovisual portions of the audiovisual

programme, “*being audio and/or video*”, as claimed, which necessarily include audio and/or video data as as pictures, etc.

In view of the above remarks, it is respectfully submitted that Hoffberg fails to teach or suggest every element claimed in claim 26. Therefore, it is further respectfully submitted that Hoffberg cannot anticipate the present claimed arrangement. Thus, withdrawal of the rejection of claim 26 is respectfully requested.

Claims 27-28 and 31-36 are dependent on independent claim 26 and are considered patentable for the reasons presented above with respect to claim 26. Specifically, as each element of claims 27 – 28 and 31 – 36 are neither taught nor suggested by Hoffberg, it is respectfully submitted that claims 27 – 28 and 31 – 36 are not anticipated by Hoffberg. Consequently, withdrawal of the rejection of claims 27-28 and 31-36 is respectfully requested.

Claim 37 is considered patentable for similar reasons as discussed above with respect to independent claim 26. Specifically, the claimed arrangement specifies and prepares particular recognition elements to be transmitted independently of audiovisual programme transmission. The system described in column 21, lines 52 – 60 of Hoffberg is merely a monitoring system and fails to provide any enabling disclosure of “*preparing recognition elements making it possible to obtain said at least one extracted audiovisual portion of the audiovisual content of said audiovisual programme, said recognition elements being constructed from pictures, sounds, parts of pictures or combinations of these audiovisual portions of audiovisual content,*” as recited in claim 37. Rather, the section relied on in the Office Action merely describes a set of predetermined codes, that are known and when input by a user at the receiving end, that triggers recording of the program. This is fundamentally different from the claimed arrangement which prepares the recognition elements from pictures, sounds, parts of pictures or combinations of these audiovisual portions of audiovisual content, which recognition elements enable a recognition unit to determine if synchronization signals

exist by identifying an audiovisual portion of the audiovisual programme removing the need to append data to the transmission stream of the audiovisual programme.

In addition, Hoffberg does not teach or suggest the claimed “preparation module”. The Office Action relies on column 25, line 62 – column 26, line 2. But the cited section of Hoffberg (and elsewhere) merely describes receiving input from an input device, i.e. a remote control. The received input includes identifying data that determines data to be stored on a storage apparatus. Input from a remote control is not equivalent to *“preparing recognition elements making it possible to obtain said at least one extracted audiovisual portion of the audiovisual content of said audiovisual programme, said recognition elements being constructed from pictures, sounds, parts of pictures or combinations of these audiovisual portions of audiovisual content”* as recited in claim 37. The input received from the input device in Hoffberg may enable recording of an entire transmission. However, this is not equivalent to the claimed arrangement which enables extraction of an audiovisual portion of the audiovisual content which is then used to determine if synchronization signals corresponding to the extracted audiovisual portion of the programme are present in the audiovisual programme received at a recognition unit.

Col. 21, lines 52-60 (or elsewhere) of Hoffberg also fails to teach or suggest the claimed transmission module. Hoffberg merely describes transmitting the identifier codes as a videotext text message with the transmission (see col.21, line 52 – 60 and col. 22, lines 7 – 10). Therefore, Hoffberg teaches away from the claimed arrangement which recites “a transmission module for transmitting said recognition elements **independently** of transmissions of said audiovisual programme”. Therefore, as each element of claim 37 is neither taught nor suggested by Hoffberg, it is respectfully submitted that Hoffberg fails to anticipate the present claimed arrangement. Thus, withdrawal of the rejection of claim 37 is respectfully requested.

Claims 38-39 are dependent on independent claim 37 and are considered patentable for the reasons presented above with respect to claim 37. Specifically, as

each element of claims 38 and 39 are neither taught nor suggested by Hoffberg, it is submitted that claims 38 and 39 are not anticipated by Hoffberg. Consequently, withdrawal of the rejection of claims 38 and 39 is respectfully requested.

Independent claim 40 includes similar features to claim 26 and thus is considered patentable foreasons presented above with respect to claim 26. Additionally, as discussed above with respect to claim 26, Hoffberg fails to disclose or each feature of the claimed recognition unit. In fact, Hoffberg teaches away from the claimed recognition unit because the inclusion of identifier codes is in direct contrast to present claimed arrangement which recognizes the audiovisual content of an audiovisual programme *"by recognition of at least one extracted audiovisual portion of the audiovisual content of said audiovisual programme, by means of recognition elements making it possible to obtain said audiovisual portion and recorded in a storage space, said recognition elements being constructed from pictures, sounds, parts of pictures or combinations of these audiovisual portions of audiovisual content"*. Unlike the claimed arrangement, Hoffberg describes a system that requires the transmission to be modified in order to identify the audiovisual content. This is in direct contrast to the claimed system which enables the recognition unit to detect that a synchronization signal exists without the need to modify the audiovisual program itself or the stream in which it was transmitted and instead uses a particular audiovisual portion of the audiovisual content of the audiovisual programme. Therefore, because Hoffberg fails to teach or suggest each feature of independent claim 40, it is respectfully submitted Hoffberg fails to anticipate the present claimed arrangement. Therefore, withdrawal of the rejection of claim 40 is respectfully requested.

Claim 41 is dependent on independent claim 40 and is considered patentable for the reasons presented above with respect to claim 40. Specifically, as each element of claim 41 is neither taught nor suggested by Hoffberg, it is respectfully submitted that claim 41 is not anticipated by Hoffberg. Consequently, withdrawal of the rejection of claim 41 is respectfully requested.

Claim 42 provides a synchronization system that comprises features similar to those described in claim 37. The claimed "specification unit" is not disclosed by column 21, lines 52 – 60 of Hoffberg (or elsewhere). As discussed above with respect to claim 37, Hoffberg merely describes transmitting the identifier codes as a videotext message with the transmission (see col. 21 52 – 60 and col. 22, lines 7 – 10). Therefore, Hoffberg teaches away from the claimed arrangement wherein the specification unit includes "a preparation module" for preparing recognition elements and "a transmission module for transmitting said recognition elements independently of transmissions of said audiovisual programme". Unlike the claimed arrangement, the cited section of Hoffberg specifically describes appending text data to a transmission signal and transmitting the transmission signal to the receiver. This interpretation is confirmed by the acknowledgement on pages 13 and 17 of the Office Action which states that Hoffberg monitors transmission channels for the code and then acts in response to receipt of the code. Thus, Hoffberg teaches away from the claimed arrangement because the specification unit transmits the recognition elements independently from the audiovisual programme. Moreover, the monitoring of a transmission channel for a text code as in Hoffberg is not equivalent to using recognition elements for *"recognizing said synchronization signals in at least one transmitted stream carrying said audiovisual programme, by recognition of at least one extracted audiovisual portion of the audiovisual content of said audiovisual programme, in the audiovisual programme received,"* and *"each of said audiovisual portions of audiovisual content consisting of at least one of the following audiovisual portions: an image, an image part, a sound and any combination of at least two of said audiovisual portions"* as in the present claimed arrangement. In contrast to the present claimed arrangement, Hoffberg requires non-audio, non-video data to match data input by a user. On the other hand, the claimed arrangement uses recognition elements including an extracted audiovisual portion of the audiovisual programme to detect if the extracted audiovisual portion is in the received audiovisual programme to determine if a synchronization signal is present. Hoffberg fails to contemplate an equivalent feature. Therefore, as each element of claim 42 is neither taught nor suggested by Hoffberg, it is

submitted that Hoffberg fails to anticipate the present claimed arrangement. Thus, withdrawal of the rejection of claim 42 is respectfully requested.

Claims 43- 45 are dependent on claim 37 and are considered patentable for the reasons presented above with respect to claim 37.

Claim 46 is a method claim that includes features that are similar to those claimed in independent claim 40. Therefore, claim 46 is considered patentable for the reasons presented above with respect to claim 40. Consequently, withdrawal of the rejection of claim 46 is respectfully requested.

Claim 47 is a method claim that includes features that are similar to those claimed in independent claim 37. Therefore, claim 47 is considered patentable for the reasons presented above with respect to claim 37. Consequently, withdrawal of the rejection of claim 47 is respectfully requested.

Claim 48 is a method claim that includes features that are similar to those claimed in independent claim 37. Therefore, claim 48 is considered patentable for the reasons presented above with respect to claim 37. Consequently, withdrawal of the rejection of claim 48 is respectfully requested.

Claims 49 – 51 are dependent on independent claim 46 and are considered patentable for the reasons presented above with respect to claim 46. Specifically, as each element of claims 49 – 51 are neither taught nor suggested by Hoffberg, it is respectfully submitted that claims 49 – 51 are not anticipated by Hoffberg. Consequently, withdrawal of the rejections of claims 49 – 51 is respectfully requested.

Claim 52 is an independent claim which provides a computer readable non-transitory storage medium including features that are similar to those claimed in independent claim 26. Therefore, claim 52 is considered patentable for the reasons

presented above with respect to claim 26. Consequently, withdrawal of the rejection of claim 52 is respectfully requested.

Claim 54 provides a computer readable non-transitory medium including features that are similar to those claimed in independent claims 26 and 37. Therefore, claim 54 is considered patentable for the reasons presented above with respect to claims 26 and 37. Consequently, withdrawal of the rejection of claim 54 is respectfully tested.

In view of the above remarks it is respectfully submitted the Office Action fails to make a *prima facie* case that the present claimed arrangement is anticipated by Hoffberg. Thus, Applicants respectfully submit that claims 26 – 29 and 31 – 54 are not anticipated by Hoffberg. It is thus, further respectfully submitted that this rejection is overcome and should be withdrawn.

Rejection of Claim 30 under 35 U.S.C. 103(a)

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over by Hoffberg et al. (US 5,920,477) in view of Solvason (WO 02/21840 A2).

The failure of an asserted combination to teach or suggest each and every feature of a claim remains fatal to an obviousness rejection under 35 U.S.C. § 103. Section 2143.03 of the MPEP requires the “consideration” of every claim feature in an obviousness determination. To render a claim unpatentable, however, the Office must do more than merely “consider” each and every feature for this claim. Instead, the asserted combination of the patents must also teach or suggest *each and every claim feature*. See *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974) (emphasis added) (to establish *prima facie* obviousness of a claimed invention, all the claim features must be taught or suggested by the prior art). Indeed, as the Board of Patent Appeals and Interferences has recently confirmed, a proper obviousness determination requires that an Examiner make “a searching comparison of the claimed invention - *including all its limitations* - with the teaching of the prior art.” See *In re Wada and Murphy*, Appeal 2007-3733, citing *In re Ochiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995) (emphasis in

original). “If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious” (MPEP §2143.03, citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)).

Claim 30 is dependent on claim 26 and is considered patentable for the reasons presented above with respect to claim 26. Additionally, Solvason (with Hoffberg) fails to teach or suggest “a reception module and a recording module, for receiving and recording in a storage space, recognition elements making it possible to obtain at least one extracted audiovisual portion of the audiovisual content of said audiovisual programme, said recognition elements being constructed from pictures, sounds, parts of pictures or combinations of these audiovisual portions of audiovisual content” as recited in claim 26. Solvason (with Hoffberg) also fails to teach or suggest “a detection module for detecting said synchronization signals in said audiovisual programme received, said detection being done without any modification being made to said at least one audiovisual programme, by means of said recognition elements stored in said storage space, by recognition in the audiovisual content of said audiovisual programme received, of said extracted audiovisual portion” and “a transmission module for transmitting action instructions in case of detection of said synchronization signals in said audiovisual programme, said instructions being designed so as to trigger at least one action” as recited in claim 26.

Claim 30 is further considered patentable because Solvason (with Hoffberg) fails to teach or suggest that “said recognition elements include at least one Boolean operator, said detection module being designed to detect at least two of said audiovisual portions of audiovisual content in conjunction with said boolean operator and the transmission module being designed to transmit said action instructions in case of such detection” as recited in claim 30. The Office Action cites col. 44 lines 5-36 of Hoffberg, in support of the assertion that the claimed feature of the detection module being designed to detect at least two of the portions of content is disclosed. Applicants respectfully disagree. It is respectfully submitted that the Office Action misunderstands the present claimed arrangement because the section relied on Hoffberg (and

elsewhere), discusses “characteristics of program material”, which Hoffberg explains in col. 44 lines 16-36. These characteristics are fundamentally different from and not equivalent to the claimed “portions of content” which are the portions of content of the audiovisual programme extracted using the recognition elements. The characteristics described in Hoffberg merely relate to the type of programming and have nothing to do with using the actual received programme data to detect synchronization signals.

The Office Action acknowledges that Hoffberg fails to teach that the recognition element includes at least one Boolean operator and cites page 10, line 22 – page 11, line 8 of Solvason in support of the assertion that this feature is disclosed. Applicants respectfully disagree. As set forth in the response filed on August 28, 2009, Solvason fails to teach or suggest the use of recognition elements as in the claimed arrangement. Rather, the cited section of Solvason (and elsewhere) relates to specifying user characteristics using a Boolean expression to define actions to be taken for particular client computers. This is not equivalent to the claimed recognition elements which are transmitted to at least one recognition unit intended and used in detecting synchronization signals associated with at least one audiovisual programme in a transmitted stream carrying the audiovisual programme, by recognizing extracted portion(s) in the content of the audiovisual programme. The URI command described in Solvason is NOT equivalent to the claimed recognition elements. URI commands are not used for detecting synchronization of any type for any purpose and therefore are not “recognition elements” which make it possible to obtain at least one extracted portion of the content of an audiovisual programme.

Even if one were to combine the system of Hoffberg with the system of Solvason, the resulting system would merely enable user input of multiple identifier codes that are constructed using a Boolean expression. The combination would still fail to teach or suggest “a reception module and a recording module, for receiving and recording in a storage space, recognition elements making it possible to obtain at least one extracted audiovisual portion of the audiovisual content of said audiovisual programme, said recognition elements being constructed from pictures, sounds, parts of

pictures or combinations of these audiovisual portions of audiovisual content” as recited in claim 26. Solvason (with Hoffberg) also fails to teach or suggest “a detection module for detecting said synchronization signals in said audiovisual programme received, said detection being done without any modification being made to said at least one audiovisual programme, by means of said recognition elements stored in said storage space, by recognition in the audiovisual content of said audiovisual programme received, of said extracted audiovisual portion” and “a transmission module for transmitting action instructions in case of detection of said synchronization signals in said audiovisual programme, said instructions being designed so as to trigger at least one action” as recited in claimed arrangement. Furthermore, the combination of Solvason with Hoffberg also fails to teach or suggest that “said recognition elements include at least one Boolean operator, said detection module being designed to detect at least two of said audiovisual portions of audiovisual content in conjunction with said boolean operator and the transmission module being designed to transmit said action instructions in case of such detection”.

In view of the above remarks, it is respectfully submitted that the Office Action fails to make a prima facie case that the present claimed arrangement is obvious over Hoffberg alone or in combination with Solvason. Therefore, as the combination fails to teach or suggest each feature claimed in claim 30, it is respectfully submitted that this rejection is overcome and should be withdrawn.

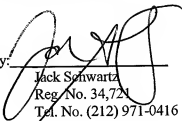
Having fully addressed the Examiner’s rejections, it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the Applicant’s attorney at the phone number below, so that a mutually convenient date and time for a telephonic interview may be scheduled.

Serial No. 10/519,633

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No additional fee is believed due. However, if a fee is due, please charge the additional fee to Deposit Account 07-0832.

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